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IN DEFENSE OF EMPIRICISM IN FAMILY LAW

Elizabeth S. Scott*

It is fitting to include an essay defending the application of empirical research to family law and policy in a symposium honoring the scholarly career of Peg Brinig, who is probably the leading empiricist working in family law. While such a defense might seem unnecessary, given the expanding role of behavioral, social, and biological research in shaping the regulation of children and families, prominent scholars recently have raised concerns about the trend toward reliance on empirical science in this field. A part of the criticism is directed at the quality of the science itself and at the lack of sophistication of legal actors, who may be unable to evaluate research adequately or to understand the limits for particular legal purposes of even well-designed and well-executed studies. For example, decisionmakers increasingly use algorithms that critics argue incorporate questionable factors. Also, researchers themselves may have biases that shape outcomes. And one study, or a handful, is a thin reed on which to base any policy. But skeptics also challenge family law's turn to empiricism on more fundamental grounds, arguing that emphasis on empirical knowledge may obscure important value competitions in family law or have undue influence on how different values are prioritized. Ultimately, critics raise the concern that the use of empirical knowledge can reinforce bias and harm marginalized families and communities.

This Essay acknowledges these problems but suggests that most concerns can be alleviated by more careful and sophisticated use of science. The application of science to questions of family and juvenile law is a relatively recent phenomenon. Legal actors have already become skillful in the use of this tool, and interdisciplinary teams of legal scholars and researchers have played a key role in the design of research and translation of empirical knowledge to law. This trend holds extraordinary promise as a means to inform regulation in ways that enhance individual and social welfare. The Essay highlights issues on which the introduction of scientific knowledge has resulted in beneficial reforms. First, twenty-first century juvenile justice regulation increasingly has been shaped by developmental science clarifying that teenage offenders differ in important ways from adult counterparts. Second, policies supporting family preservation and healthy child development have gained support from a large body of research on child development as well as programmatic studies. These examples provide lessons for the use of research in this domain.

Finally, the Essay probes the foundational critique of empiricism in family law and argues that the threat may be less severe than critics fear. To be sure, values shape family law and policy, and competing values often cannot be prioritized solely (or even largely) on the basis of empirical knowledge. But values often have empirical content, and accuracy in evaluating the stakes of the value contests is important. Moreover, the evidence does not support the concern

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that answers offered by empirical studies will be given undue weight in values competitions. The likely alternative—reliance on conventional wisdom and assumptions about the world—is usually inferior as a basis of policy and possibly more likely to result in biased calculations harmful to marginalized families.

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INTRODUCTION

It seems very appropriate to reflect on the expanding role of empirical research in family law and policy in a symposium honoring the scholarship and career of Peg Brinig, who is probably the leading empiricist working in this field.¹ Empirical research has played an increasingly prominent role in family law and affiliated fields such as youth crime regulation in recent years, due to the work of Brinig and others. Whereas in an earlier era, courts and regulators relied on common sense and intuition about family life and child development (“any parent knows”),² increasingly lawmakers turn to scientific studies to support assumptions about children’s needs, adolescent decision-

1 Brinig is a model interdisciplinary scholar. She is trained as a lawyer and as an economist, and she has also collaborated with a variety of scholars, including sociologists, economists, and legal scholars. See Douglas W. Allen & Margaret Brinig, *Child Support Guidelines and Divorce Incentives*, 32 INT’L REV. L. & ECON. 309 (2012); Douglas W. Allen & Margaret Brinig, *Do Joint Parenting Laws Make Any Difference?*, 8 J. EMPIRICAL LEGAL STUD. 304 (2011) [hereinafter Allen & Brinig, *Do Joint Parenting Laws*]; Margaret F. Brinig & Marsha Garrison, *Getting Blood from Stones: Results and Policy Implications of an Empirical Investigation of Child Support Practice in St. Joseph County, Indiana Paternity Actions*, 56 FAM. CT. REV. 521 (2018); Margaret F. Brinig & Steven L. Nock, *Legal Status and Effects on Children*, 5 U. ST. THOMAS L.J. 548 (2008); Margaret F. Brinig & Steven L. Nock, *The One-Size-Fits-All Family*, 49 SANTA CLARA L. REV. 137 (2009).

2 *Miller v. Alabama*, 567 U.S. 460, 471 (2012) (quoting *Roper v. Simmons*, 543 U.S. 551, 569 (2005)); see *Parham v. J.R.*, 442 U.S. 584, 602–03 (1979) (“[P]ages of human experience . . . teach that parents generally do act in the child’s best interests.”); see also Clare Huntington, Essay, *The Empirical Turn in Family Law*, 118 COLUM. L. REV. 227, 237–38 (2018) (discussing the earlier era’s reliance on “perceived common sense” rather than empirical support).

making, and family form to guide the formulation of law and policy.³ Some studies have focused directly on family law issues and the impact of particular reforms,⁴ but lawmakers have also drawn on general child development and other research to inform law and policy.⁵ This trend toward employing science has been critically important in some domains. For example, research evidence showing that children raised by same-sex parents fared as well as children in families with opposite-sex parents played a crucial role in litigation establishing the right of same-sex couples to marry.⁶ More broadly, recent juvenile justice reforms have been heavily influenced by research on social and biological development,⁷ and research on early child development has begun to influence the formulation of policies to support families.⁸

Lawmakers and scholars have generally embraced the trend toward scientifically informed family law,⁹ but in recent years, prominent scholars,

3 See *Bisbing v. Bisbing*, 166 A.3d 1155, 1166–70 (N.J. 2017) (citing extensive social science research in deciding what rule a trial court should apply in determining whether relocation is in the best interest of the child). Much research on adolescent development has found its way into opinions dealing with interrogation and sentencing of juveniles. See *Miller*, 567 U.S. at 471, 472 n.5 (“The evidence presented to us in these cases indicates that the science and social science supporting *Roper’s* and *Graham’s* conclusions have become even stronger.”); *J.D.B. v. North Carolina*, 564 U.S. 261, 273 n.5 (2011) (“Although citation to social science and cognitive science authorities is unnecessary to establish these commonsense propositions, the literature confirms what experience bears out.”); *infra* Section II.A. Courts also invoke research in deciding cases, drawing on social science in custody disputes. See *infra* text accompanying notes 32–41 (discussing parental alienation syndrome).

4 See, e.g., Allen & Brinig, *Do Joint Parenting Laws*, *supra* note 1.

5 For discussion of the application of research on adolescent development to youth justice policy, see *infra* Section II.A.

6 See *DeBoer v. Snyder*, 973 F. Supp. 2d 757, 760–61 (E.D. Mich. 2014), *rev’d*, 772 F.3d 388 (6th Cir. 2014), *rev’d sub nom.* *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015); *Perry v. Schwarzenegger*, 704 F. Supp. 2d 921, 935 (N.D. Cal. 2010), *aff’d sub nom.* *Perry v. Brown*, 671 F.3d 1052 (9th Cir. 2012), *vacated and remanded sub nom.* *Hollingsworth v. Perry*, 570 U.S. 693 (2013). See Huntington, *supra* note 2, at 241–49 for a discussion of the significant role empirical research played in the same-sex marriage debate.

7 See discussion *infra* Section II.A; see also NAT’L RESEARCH COUNCIL, *REFORMING JUVENILE JUSTICE: A DEVELOPMENTAL APPROACH* (Richard J. Bonnie et al. eds., 2013); ELIZABETH S. SCOTT & LAURENCE STEINBERG, *RETHINKING JUVENILE JUSTICE* 89–119 (2008) (advocating that juvenile crime regulation be formulated in a developmental framework and describing evidence of the trend).

8 See Clare Huntington & Elizabeth S. Scott, *Conceptualizing Legal Childhood in the Twenty-First Century*, 118 MICH. L. REV. (forthcoming 2020); *infra* text accompanying notes 129–31.

9 See Sanford L. Braver et al., *A Randomized Comparative Effectiveness Trial of Two Court-Connected Programs for High-Conflict Families*, 54 FAM. CT. REV. 349 (2016); Huntington, *supra* note 2, at 240–66; Huntington & Scott, *supra* note 8, at 6; Ross A. Thompson, *Bridging Developmental Neuroscience and the Law: Child-Caregiver Relationships*, 63 HASTINGS L.J. 1443 (2012). The deployment of developmental and other social science research in youth crime regulation has received broad support across a range of issues. See *infra* Section II.A; see also Jason P. Nance, *Students, Police, and the School-to-Prison Pipeline*, 93 WASH. U. L. REV. 919 (2016).

including Brinig herself, have raised concerns about the trend.¹⁰ A part of the criticism is directed at the quality of research sometimes used in this context. Research design may be flawed and researchers may have biases that shape outcomes.¹¹ Critics have aptly described some research as “junk science”; for example, studies of “parental alienation syndrome” have been discredited but continue to be invoked in divorce custody proceedings.¹² Further, legal advocates are charged with deploying research findings selectively in service of their litigation or policy goals.¹³ Moreover, courts and other legal actors sometimes lack the sophistication necessary to evaluate the quality of research or to understand the limits of even well-designed and well-executed studies for particular legal purposes.¹⁴ Solid research about developmental trends across an age span, for example, may be unhelpful when applied to individuals.¹⁵ And one study, or a handful, is a thin reed on which to base any rule or policy.¹⁶

Skeptics also challenge family law’s turn to empiricism on more fundamental grounds. Most recently, Clare Huntington, while generally applauding the “empirical turn in family law,”¹⁷ has argued that emphasis on empirical knowledge leads to a focus on outcomes that tends to obscure the extent to which policy debates are about contested values.¹⁸ In these important debates, she and others argue empirical knowledge is of limited utility in assisting us to prioritize competing values and giving undue weight to empirics can distort the values debate.¹⁹ Ultimately, critics raise the concern that

10 Margaret F. Brinig, *Empirical Work in Family Law*, 2002 U. ILL. L. REV. 1083, 1084; see also Robert E. Emery et al., “Bending” Evidence for a Cause: Scholar-Advocacy Bias in Family Law, 54 FAM. CT. REV. 134 (2016); Huntington, *supra* note 2, at 232; Sarah H. Ramsey & Robert F. Kelly, *Using Social Science Research in Family Law Analysis and Formation: Problems and Prospects*, 3 S. CAL. INTERDISC. L.J. 631, 643–45 (1994).

11 See *infra* Section I.A.

12 See *infra* notes 32–41 and accompanying text.

13 See, e.g., Richard A. Posner, *Foreword: A Political Court*, 119 HARV. L. REV. 32, 64–65 (2005) (criticizing the *Roper* Court for ignoring the “rich statistical literature on the deterrent effect of capital punishment”); see also Emery et al., *supra* note 10, at 138–39.

14 See *infra* Section I.B.

15 See David L. Faigman et al., *Group to Individual (G2i) Inference in Scientific Expert Testimony*, 81 U. CHI. L. REV. 417 (2014).

16 See *infra* text accompanying notes 64–67.

17 Huntington, *supra* note 2, at 231.

18 See *id.* at 281–91.

19 Huntington has recently argued this point forcefully. See *id.* at 289. But others have also underscored that value contests that cannot be resolved empirically are at the heart of many family law debates. Robert Mnookin famously offered an early articulation. See Robert H. Mnookin, *Child-Custody Adjudication: Judicial Functions in the Face of Indeterminacy*, LAW & CONTEMP. PROBS., Summer 1975, at 226, 230 (1975) (explaining that custody decision is indeterminate because of a lack of consensus about values); *id.* at 260 (“Deciding what is best for a child poses a question no less ultimate than the purposes and values of life itself.”).

the use of empirical knowledge can reinforce bias and harm marginalized families and communities.²⁰

This Essay acknowledges these criticisms but suggests that many concerns can be alleviated by more careful and sophisticated use of science. The application of science to questions of family and juvenile law is a relatively recent phenomenon. Legal actors are becoming more skillful in the use of this tool, which holds extraordinary promise as a means to inform decision-making and regulation in a way that enhances individual and social welfare. Moreover, scholars and researchers increasingly have formed interdisciplinary teams to design studies and translate research findings to legal actors.²¹ The scholarly critique itself is evidence that legal actors are becoming more sophisticated consumers who are better able to evaluate research and apply it to family law and policy. And the adversary process itself exposes weaknesses in scientific evidence. Consider the litigation over same-sex marriage; ultimately, the solid research supporting same-sex parents triumphed in the courts over the flimsy studies offered by opponents.²²

The Essay highlights issues on which the introduction of scientific knowledge has resulted in key beneficial reforms; these examples clarify some characteristics of the research most useful in this context. First, twenty-first century juvenile justice regulation increasingly has been shaped by developmental science clarifying that teenage offenders differ in important ways from their adult counterparts.²³ Second, policies supporting family preservation and healthy child development are supported by a large body of research on child development indicating the importance for child well-being of stable parent-child relationships.²⁴ This research has been invoked by scholars defending parental rights of marginalized families.²⁵ Also, longitudinal research on fragile families, together with programmatic studies, has been influential in supporting early childhood programs.²⁶ These examples suggest that the empirical work most useful in informing legal policy typically includes research that has *not* been undertaken primarily for that purpose, together with studies examining legally relevant issues. It also suggests that lawmakers' confidence in research should be directly correlated with its depth and range.

20 Huntington, *supra* note 2, at 293–95. State and local child protective authorities are beginning to make use of algorithms that attempt to predict the likelihood of child mistreatment. For a discussion of the use of predictive analytics in child welfare, see *infra* notes 68–72 and accompanying text.

21 See *infra* text accompanying notes 79–90.

22 See *Obergefell v. Hodges*, 135 S. Ct. 2584, 2600 (2015); see also *Perry v. Schwarzenegger*, 704 F. Supp. 2d 921, 935 (N.D. Cal. 2010), *aff'd sub nom.* *Perry v. Brown*, 671 F.3d 1052 (9th Cir. 2012), *vacated and remanded sub nom.* *Hollingsworth v. Perry*, 570 U.S. 693 (2013).

23 See *infra* text accompanying notes 100–15.

24 See Huntington & Scott, *supra* note 8, at 68.

25 See *id.* at 67.

26 See *infra* text accompanying notes 129–32.

Finally, the Essay probes the foundational critique of empiricism in family law and argues that the threat may be less severe than critics fear.²⁷ To be sure, values shape family law and policy and competing values often cannot be prioritized solely (or even largely) on the basis of empirical knowledge. But values often have empirical content, and accuracy in evaluating the stakes of a value contest is critically important. Moreover, the evidence does not support the concern that answers offered by empirical studies will be given undue weight in values competitions. The likely alternative—reliance on conventional wisdom and assumptions about the world—seems almost always to be inferior as a basis of prioritizing values in making decisions and formulating law, and more likely to result in biased calculations harmful to marginalized families.

I. EVALUATING THE CHALLENGES OF EMPIRICAL SCIENCE IN FAMILY LAW

In general, the application of social science and other empirical research to family and juvenile law has been welcomed by lawmakers and scholars.²⁸ It is well accepted that empirical research is useful in assisting in the construction of law and policy based on an accurate account of relevant conditions and behavior and in promoting the efficient allocation of scarce resources.²⁹ But some observers are uneasy—even scholars like Huntington who generally acknowledge the important and beneficial role of empirical work in family law.³⁰ Much of the concern about the use of empirical research in family law fits in one of two interrelated categories. First, critics sometimes assail the quality of the research itself or question its fit to doctrinal or policy issues. Second, skeptics raise concerns about a more serious problem—the ability of courts and legislatures to evaluate research, understand its limitations, and apply it with the necessary sophistication. This Part briefly evaluates these concerns and assesses the seriousness of the problem.³¹

A. *Limitations of Empirical Research*

This Section briefly reviews several prominent challenges directed at the application of research studies to family and juvenile law. In some instances, poorly constructed studies have had an important impact on law and decisionmaking. Researcher bias is also a concern, particularly when studies focus directly on specific family law issues or implicate political or ideological

27 See *infra* Part III.

28 See Huntington & Scott, *supra* note 8, at 21–28 (describing beneficial use of social science research in modern law regulating children).

29 *Id.*

30 My coauthored article with Huntington points to this important role. See *id.* Huntington's other work has also drawn heavily on social science research. See generally CLARE HUNTINGTON, *FAILURE TO FLOURISH: HOW LAW UNDERMINES FAMILY RELATIONSHIPS* (2014).

31 Clare Huntington has provided an excellent review of the various concerns about the use of research in family law. Huntington, *supra* note 2, at 271–95.

values. On the other hand, the findings of research conducted with no policy agenda may be only tangentially relevant to legal questions and are often distorted in translation when applied to law. Finally, the use of algorithms in child protection and juvenile justice has raised alarm recently, in part because the incorporated factors lack transparency and may reinforce bias.

Methodological flaws in many studies that have been influential in family law include very small samples,³² the lack of a control group,³³ and sample selection bias.³⁴ Combining all these defects are studies describing “parental alienation syndrome” (PAS), a diagnosis that became prominent in child custody cases in the 1990s.³⁵ PAS was invented and promulgated by psychologist Richard Gardner, who described a condition in which one parent alienates a child from the other parent, destroying the parent-child relationship and grievously harming the child.³⁶ Both courts and legislatures embraced the importance of PAS in resolving custody disputes, often pointing to Gardner’s research and testimony.³⁷ Although the scientific aura surrounding PAS almost surely contributed to the influence of PAS, Gardner’s “research” failed to conform to the most basic methodological requirements of scientific studies. The small sample that formed the basis of his studies consisted of his

32 Early legislative advocates for joint custody pointed to supportive studies, ignoring small samples. See Elizabeth Scott & Andre Derdeyn, *Rethinking Joint Custody*, 45 OHIO ST. L.J. 455, 455 n.2 (1984) (describing studies); see also DEBORAH ANNA LUEPNITZ, *CHILD CUSTODY: A STUDY OF FAMILIES AFTER DIVORCE* 18 (1982) (eighteen parents with joint-custody arrangements, sixteen custodial mothers, and sixteen custodial fathers); Alice Abarbanel, *Shared Parenting After Separation and Divorce: A Study of Joint Custody*, 49 AM. J. ORTHOPSYCHIATRY 320, 320 (1979) (four families); Judith Brown Greif, *Fathers, Children, and Joint Custody*, 49 AM. J. ORTHOPSYCHIATRY 311, 311 (1979) (forty fathers, eight with joint custody); Susan Steinman, *The Experience of Children in a Joint-Custody Arrangement: A Report of a Study*, 51 AM. J. ORTHOPSYCHIATRY 403, 403 (1981) (twenty-four families).

33 See *infra* note 39 and accompanying text (discussing the Wallerstein and Kelly study of the impact of divorce on children).

34 See *infra* note 41 and accompanying text (discussing studies of children raised by gay parents).

35 For descriptions and critiques of PAS, see generally Carol S. Bruch, *Parental Alienation Syndrome and Parental Alienation: Getting It Wrong in Child Custody Cases*, 35 FAM. L.Q. 527 (2001); Elizabeth S. Scott & Robert E. Emery, *Gender Politics and Child Custody: The Puzzling Persistence of the Best-Interests Standard*, LAW & CONTEMP. PROBS., no. 1, 2014, at 69; Cheri L. Wood, *The Parental Alienation Syndrome: A Dangerous Aura of Reliability*, 27 LOY. L.A. L. REV. 1367 (1994).

36 See RICHARD A. GARDNER, *THE PARENTAL ALIENATION SYNDROME* (2d ed. 1998); Richard A. Gardner, *Legal and Psychotherapeutic Approaches to the Three Types of Parental Alienation Syndrome Families: When Psychiatry and the Law Join Forces*, CT. REV., Spring 1991, at 14; Richard A. Gardner, *Recent Trends in Divorce and Custody Litigation*, ACAD. F., Summer 1985, at 3.

37 See, e.g., J.F. v. L.F., 694 N.Y.S.2d 592, 599–600 (Fam. Ct. 1999), *aff’d sub nom.* Faneca v. Faneca, 705 N.Y.S.2d 281 (App. Div. 2000); Karen B. v. Clyde M., 574 N.Y.S.2d 267, 271 (Fam. Ct. 1991), *aff’d sub nom.* Karen “PP” v. Clyde “QQ,” 602 N.Y.S.2d 709 (App. Div. 1993). Motivated by concern about the harm to children of parental alienation, several states enacted “friendly parent” statutes, which disfavor a parent who has undermined the child’s relationship with the other parent. See, e.g., FLA. STAT. ANN. § 61.13(3)(a), (j) (West 2019); VA. CODE ANN. § 20-124.3(6)–(7) (West 2019).

male clients who had lost custody of their children in contentious disputes; Gardner never interviewed the children or mothers in his studies.³⁸ Less egregious variations of this problem plagued early research on the harm of divorce on children. Judith Wallerstein and Joan Kelly's famous study describing the harms experienced by the children of divorce involved a clinical sample of children in therapy, whose parents were divorcing, with no control sample.³⁹ A few studies involving a handful of families played an outsize role in the legislative movement to promote joint custody.⁴⁰ Finally, research on the outcomes of children raised by gay and lesbian parents has of necessity involved mostly educated, middle-class parents; thus, findings could not be generalized confidently across demographic groups.⁴¹

Researchers studying family law issues sometimes have a personal interest in the subject matter of the research or have political or ideological leanings that favor some outcomes over others. Some research in this category is methodologically sound. Studies of children's outcomes in families with same-sex parents largely has been undertaken by respected researchers who happened to be lesbian,⁴² and top-notch, though politically progressive, researchers have studied juvenile crime.⁴³ But research designed to address particular family law issues, from the impact of joint-custody arrangements and importance of contact with noncustodial fathers,⁴⁴ to the benefits of no-

38 See sources cited *supra* note 36.

39 Wallerstein and Kelly's study on the impact of divorce on children drew conclusions from a sample of 131 children in sixty white, upper-middle-class, divorced families who had sought out counseling. JUDITH S. WALLERSTEIN & JOAN BERLIN KELLY, *SURVIVING THE BREAKUP: HOW CHILDREN AND PARENTS COPE WITH DIVORCE* 4–5 (1980). For criticism of the Wallerstein-Kelly study, see Ramsey & Kelly, *supra* note 10, at 643 (explaining how the researchers' small "convenience sample[]" was "likely to be biased, that is, not representative of the population to which the researcher[s] wishe[d] to generalize").

40 See *supra* note 32 and accompanying text.

41 See, e.g., Timothy J. Biblarz & Evren Savci, *Lesbian, Gay, Bisexual, and Transgender Families*, 72 J. MARRIAGE & FAM. 480, 482 (2010) ("Most of the patterns above describe samples of lesbian families that are disproportionately middle class, White, and highly educated."); Rachel H. Farr & Charlotte J. Patterson, *Coparenting Among Lesbian, Gay, and Heterosexual Couples: Associations with Adopted Children's Outcomes*, 84 CHILD DEV. 1226, 1229 (2013) ("Most parents [participating in the study] were well educated, worked full-time, and had family incomes above national averages.").

42 Charlotte Patterson and Nanette Gartrell are lesbian researchers. Charlotte J. Patterson, *Same-Sex Marriage and the Interests of Children: Comments on Michael Wald's "Same-Sex Couple Marriage: A Family Policy Perspective,"* 9 VA. J. SOC. POL'Y & L. 345, 345 (2001) (describing her coming out); Dee Mosbacher, *Nanette Gartrell*, N.Y. TIMES (Jan. 16, 2005), <https://www.nytimes.com/2005/01/16/fashion/weddings/dee-mosbacher-nanette-gartrell.html> (announcing Nanette Gartrell's marriage to Diane Mosbacher).

43 See, e.g., Jeffrey Fagan, *Social and Legal Policy Dimensions of Violent Juvenile Crime*, 17 CRIM. JUST. & BEHAV. 93 (1990).

44 Fathers'-rights advocates often cite studies that purport to show child outcomes are better in joint-custody arrangements than in sole-custody arrangements. See, e.g., Sanford L. Braver et al., *Relocation of Children After Divorce and Children's Best Interests: New Evidence and Legal Considerations*, 17 J. FAM. PSYCHOL. 206, 214 (2003); Linda Nielsen, *Shared Physical*

fault divorce,⁴⁵ is often shadowed by the suspicion that the views of the researcher have shaped research design or interpretation of findings.⁴⁶ This concern affects policy-driven research generally, but family law research may be particularly vulnerable because the nature of the subject matter implicates intimate personal matters so directly.

Research that may have relevance to law but is not conducted for a specific policy purpose does not intrinsically pose the risk of bias. But because this research is not tailored to answer legal questions, it can pose other challenges when applied by legal actors. Researchers without a legal or policy goal may fail to frame questions in ways most useful for legal purposes or fail to ask important questions altogether. Methodologically sound research typically probes narrow questions, excluding confounding variables. Findings are similarly narrow, and good researchers carefully describe the limitations of the research findings. But when research findings are applied in legal settings, precision and qualification are often lost as advocates, courts, and scholars predictably extrapolate, exaggerate, and oversimplify.⁴⁷ For example, neuroscientists have studied social and emotional brain development in adolescents and young adults without consideration of the implications for criminal justice policy. Courts, scholars, and advocates have linked this research to legal policy, often very usefully,⁴⁸ but sometimes exaggerate its relevance and importance.⁴⁹

The use of algorithms in family and juvenile law represents another form of empirical input that has become widespread, often guiding decisions about intervention in child protection cases as well as risk assessment of

Custody: Summary of 40 Studies on Outcomes for Children, 55 J. DIVORCE & REMARRIAGE 613, 631–32 (2014).

45 See, e.g., Ira Mark Ellman, *The Misguided Movement to Revive Fault Divorce, and Why Reformers Should Look Instead to the American Law Institute*, 11 INT'L J.L. POL'Y & FAM. 216 (1997).

46 See, e.g., Elizabeth Bartholet, *Thoughts on the Liberal Dilemma in Child Welfare Reform*, 24 WM. & MARY BILL RTS. J. 725, 726–27 (2016) (offering this criticism of researchers favoring family preservation policies and describing a “corrupt policy-research merger”).

47 Emery et al., *supra* note 10, at 134 (criticism of scholar-advocates). We return to this problem in the next Section.

48 Developmental brain research was invoked by the Supreme Court in the juvenile sentencing opinions. See, e.g., *Miller v. Alabama*, 567 U.S. 460, 471–72 (2012) (“Our decisions [in *Roper* and *Graham*] rested not only on common sense—on what ‘any parent knows’—but on science and social science as well. . . . We reasoned that [scientific] findings—of transient rashness, proclivity for risk, and inability to assess consequences—both lessened a child’s ‘moral culpability’ and enhanced the prospect that, as the years go by and neurological development occurs, his ‘deficiencies will be reformed.’” (first quoting *Roper v. Simmons*, 543 U.S. 551, 569 (2005); and then quoting *Graham v. Florida*, 560 U.S. 48, 68 (2010))); see also Elizabeth Scott et al., *Brain Development, Social Context, and Justice Policy*, 57 WASH. U. J.L. & POL'Y 13 (2018) (describing policy proposals on recent research into brain development).

49 Elizabeth S. Scott et al., *Young Adulthood as a Transitional Legal Category: Science, Social Change, and Justice Policy*, 85 FORDHAM L. REV. 641 (2016) (criticizing use of brain science by advocates for treating young adults in justice system as juveniles).

youth in the justice system.⁵⁰ Algorithms have become controversial as a usurpation of human judgment. Another criticism, addressed below, is that algorithms reinforce biases by using factors such as police contact, child welfare involvement, and others that themselves may be grounded in biased decisions and policies.⁵¹

B. Legal Actors as Consumers: Problems of Translation and Application

Much of the misuse of empirical research in family law can be attributed to the adversarial setting in which empirical work is often deployed and/or to the lack of sophistication of legal actors. A part of the problem historically has been that legal training has not provided tools to distinguish solid research from that of little value. Today, however, lawyers are getting more sophisticated, and a greater concern is directed at misapplication of methodologically sound research. Lawyers as advocates in adjudication, but also in the legislative and regulatory processes, are sometimes motivated to invoke and sometimes distort any available empirical support for their legal positions, regardless of the merit of the research or whether application is appropriate to inform the legal dispute.⁵² Whether the use of flawed research or misuse of solid studies is effective depends in part on the sophistication of opposing advocates; it also depends on the ability of courts evaluating the research to disregard weak studies. Selective use of favorable studies, while ignoring inconsistent findings (“cherry picking”)⁵³; exaggeration of the importance of one study (or a small number); oversimplification and overstatement of findings;⁵⁴ and application of findings from group research to

50 See *supra* notes 68–69 and accompanying text; see also DEV. SERVS. GRP., INC., RISK AND NEEDS ASSESSMENTS FOR YOUTHS 5–6 (2015), <https://www.ojjdp.gov/mpg/litreviews/RiskandNeeds.pdf>; RHEMA VAITHIANATHAN ET AL., VULNERABLE CHILDREN: CAN ADMINISTRATIVE DATA BE USED TO IDENTIFY CHILDREN AT RISK OF ADVERSE OUTCOMES? 6–11 (2012), <http://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/research/vulnerable-children/auckland-university-can-administrative-data-be-used-to-identify-children-at-risk-of-adverse-outcome.pdf>.

51 See *infra* notes 70–72 and accompanying text.

52 Emery et al., *supra* note 10; Irwin Sandler et al., *Convenient and Inconvenient Truths in Family Law: Preventing Scholar-Advocacy Bias in the Use of Social Science Research for Public Policy*, 54 FAM. CT. REV. 150 (2016).

53 In his *Roper v. Simmons* dissent, Justice Scalia criticized the majority for “picking and choosing [studies] that support[ed] its position.” 543 U.S. 551, 616–17 (2005) (Scalia, J., dissenting). “In other words,” Scalia argued, “all the Court has done today, to borrow from another context, is to look over the heads of the crowd and pick out its friends.” *Id.* at 617. Similarly, Judge Posner has argued that the *Roper* majority ignored the “rich statistical literature on the deterrent effect of capital punishment” and relied on studies that did not in fact support a “categorical exclusion of sixteen- and seventeen-year-olds from the ranks of the mature.” Posner, *supra* note 13, at 64–65; see also Emery et al., *supra* note 10, at 138 (describing cherry picking in use of research in family law).

54 See Stephen J. Morse, *Brain Overclaim Syndrome and Criminal Responsibility: A Diagnostic Note*, 3 OHIO ST. J. CRIM. L. 397 (2006); see also Scott et al., *supra* note 49, at 664 (discussing the uncertainties that remain in developmental neuroscience research and the need to avoid exaggeration); *id.* (“Some reformers have pointed to neuroscience and other

individual cases in litigation⁵⁵ provide little valuable information and can undermine the adjudicative process. Unless these tactics are exposed, the science can be given undeserved weight. Moreover, this problem is amplified in family court because expert scientific testimony is not subject to screening in that context,⁵⁶ and judges often do not have clerks or other resources to examine the validity of studies offered. This may explain the lingering shelf life of PAS long after it was thoroughly debunked by scientists.

In the legislative and regulatory arena, advocates may misuse research findings in ways similar to its use in litigation when seeking to influence lawmakers for or against proposed legislation or regulation. In these contexts, however, there is more opportunity for a range of opinions to be heard and more time for deliberation. Moreover, legislative and agency staff can undertake their own investigations into the quality and quantity of empirical support for reforms.⁵⁷ In general, it would seem uncontroversial that solid empirical evidence can usefully inform legislative and regulatory lawmaking; not surprisingly, scientific input has increased substantially in recent decades at the federal and state levels.⁵⁸ Nonetheless, some legislative reform movements have become highly politicized and scientific research has been misused by partisans. Fathers'-rights advocates pressing state legislatures to enact statutes favoring joint custody often made questionable use of social science studies in promoting their position.⁵⁹

research in advocating that young adults be adjudicated in the juvenile system. But the research supporting the presumption underlying the lenient, rehabilitative approach of the juvenile system—that youthful offending is driven by developmental immaturity—is weaker for young adults.” (footnote omitted)).

55 See Faigman et al., *supra* note 15.

56 For a discussion of family courts' failure to apply *Daubert*, see Scott & Emery, *supra* note 35, at 99–100; and see also Huntington, *supra* note 2, at 256–57.

57 Both Congress and some state legislatures have agencies that conduct research. ADRIENNE L. FERNANDES-ALCANTARA, CONG. RESEARCH SERV., RL34306, VULNERABLE YOUTH: FEDERAL MENTORING PROGRAMS AND ISSUES (2019), <https://fas.org/sgp/crs/misc/RL34306.pdf> (reviewing studies on the success of mentoring programs for vulnerable youth). Washington State has an independent research agency that undertakes studies for the legislature, the Washington State Institute for Public Policy. WASH. STATE INST. FOR PUB. POLICY & EVIDENCE-BASED PRACTICE INST., UNIV. OF WASH., UPDATED INVENTORY OF EVIDENCE-BASED, RESEARCH-BASED, AND PROMISING PRACTICES: FOR PREVENTION AND INTERVENTION SERVICES FOR CHILDREN AND JUVENILES IN THE CHILD WELFARE, JUVENILE JUSTICE, AND MENTAL HEALTH SYSTEMS (2018), http://www.wsipp.wa.gov/ReportFile/1698/Wsipp_Updated-Inventory-of-Evidence-Based-Research-Based-and-Promising-Practices-For-Prevention-and-Intervention-Services-for-Children-and-Juveniles-in-the-Child-Welfare-Juvenile-Justice-and-Mental-Health-Systems_Report.pdf (assessing whether prevention and intervention practices are evidence based by conducting quantitative reviews of the research literature).

58 See FERNANDES-ALCANTARA, *supra* note 57, at 17; WASH. STATE INST. FOR PUB. POLICY & EVIDENCE-BASED PRACTICE INST., UNIV. OF WASH., *supra* note 57.

59 See Jana B. Singer & William L. Reynolds, *A Dissent on Joint Custody*, 47 MD. L. REV. 497, 506–11 (1988) (criticizing proponents of joint custody for relying on empirical research involving small, nonrepresentative samples).

Three examples of questionable uses of scientific research illustrate the complexity of the problems that can arise and the sophistication required to identify and challenge misuse. The first is known as the G2i problem, the application of research conducted on groups of subjects to individuals.⁶⁰ Researchers on adolescent brain development, for example, have found that social and emotional maturation proceeds slowly during adolescence and into early adulthood.⁶¹ However, these general findings cannot be used to assess a particular defendant's brain development.⁶² Thus, defense attorneys who introduce a brain scan as evidence of a young defendant's immaturity go beyond the boundary of science. Research studies on demographic groups can inform policies affecting the group as a whole and can be offered in litigation as "framework" evidence about the group of which the defendant is a member, but findings cannot be applied to an individual within the cohort.⁶³

The second problem involves the use of legally relevant, methodologically sound research findings that ultimately prove not to be generalizable to other settings, despite apparent similarities. A famous example was the study by Lawrence Sherman that found that the arrest of men in Minneapolis accused of domestic violence (rather than informal resolution of their cases) reduced recidivism.⁶⁴ Relying on this study, many localities thereafter adopted policies favoring arrest.⁶⁵ But follow-up studies in other cities failed to replicate the early findings and found that sometimes arrest was followed

60 Faigman et al., *supra* note 15, at 420.

61 Kathryn Monahan et al., *Juvenile Justice Policy and Practice: A Developmental Perspective*, 44 CRIME & JUST. 577, 580–87 (2015).

62 Jay D. Aronson, *Brain Imaging, Culpability and the Juvenile Death Penalty*, 13 PSYCHOL. PUB. POL'Y & L. 115, 134 (2007) ("For a variety of reasons, most neuroscientists and legal scholars are skeptical that brain imaging techniques can diagnose mental conditions in individual offenders. Among other reasons, they cite the lack of in-depth knowledge of the range of variance in normal brain structure and function, the extent to which networks in the brain either compensate for, or are affected by, pathologies at any particular node, and the current deficiency of empirical evidence linking brain structure and in vitro function (i.e., performance on simple tasks while in the MRI machine) to specific behaviors in vivo (i.e., in real life).").

63 Faigman et al., *supra* note 15, at 425 ("[T]he decision whether to admit expert testimony regarding the empirical framework is separate from the decision whether to admit expert testimony offering an opinion that a particular case is an instance of that empirical framework. . . . Even if framework evidence is admissible, extrapolation from it to the individual case may not be scientifically or legally justifiable.").

64 Lawrence W. Sherman & Richard A. Berk, *The Specific Deterrent Effects of Arrest for Domestic Assault*, 49 AM. SOC. REV. 261, 270 (1984). Brinig describes this example in her critique of the use of empirical research in family law. Brinig, *supra* note 10, at 1095–96.

65 See Lawrence W. Sherman & Ellen G. Cohn, *The Impact of Research on Legal Policy: The Minneapolis Domestic Violence Experiment*, 23 LAW & SOC'Y REV. 117, 117 (1989) (finding over a third of respondents from 117 U.S. police departments had been influenced by the experiment); Joan Zorza, *The Criminal Law of Misdemeanor Domestic Violence, 1970–1990*, 83 J. CRIM. L. & CRIMINOLOGY 46, 62 (1992).

by increased recidivism rates.⁶⁶ Ultimately Sherman and others concluded that the key factor rationalizing the different outcomes was whether accused men were employed and had ties to the community. Those individuals likely were deterred from reoffending by the threat of losing their jobs or of the reputational harm attending arrest; others probably were not, and arrest increased their hostility and violent behavior.⁶⁷ The lesson from this account is that a single study almost never provides a sufficient basis for an important legal reform.

A third potentially problematic application of science involves the use of algorithms in guiding child-welfare and juvenile-justice decisions. These algorithms basically combine factors to create risk-assessment instruments that potentially facilitate more scientifically based decisions in these domains. Child protective service agencies use algorithms known as predictive analytics to determine whether intervention or investigation of a family is warranted, sometimes leading to a decision of whether the child should remain in the home or be removed due to the threat posed by parental abuse.⁶⁸ Courts and regulators also use risk-assessment instruments to evaluate young offenders in making dispositional decisions.⁶⁹ In both contexts, the instruments hold promise but also may carry the risk of overprediction of harm due to bias in the construction of the algorithms. Critics argue that child welfare algorithms are biased against families of color who have had contact with the system, often initiated by financial need.⁷⁰ Risk-assessment instruments

66 After the initial Sherman study was published, the National Institute of Justice conducted five large-scale, long-term replication studies in five different cities: Omaha, Milwaukee, Charlotte, Miami, and Colorado Springs. The study found that in cities with high levels of poverty and in homes suffering from unemployment, arrest actually increased rather than decreased domestic-violence recidivism rates. See Janell D. Schmidt & Lawrence W. Sherman, *Does Arrest Deter Domestic Violence?*, 36 AM. BEHAV. SCIENTIST 601, 605–06 (1993) (summarizing findings of the replication studies).

67 See *id.*; Lawrence W. Sherman et al., *The Variable Effects of Arrest on Criminal Careers: The Milwaukee Domestic Violence Experiment*, 83 J. CRIM. L. & CRIMINOLOGY 137, 162 (1992) (suggesting that employed arrestees might be deterred out of fear of losing their jobs).

68 See, e.g., Huntington, *supra* note 2, at 259–63; Marquis Cabrera, *Florida Leverages Predictive Analytics to Prevent Child Fatalities—Other States Follow*, HUFFPOST (Dec. 21, 2015), https://www.huffpost.com/entry/florida-leverages-predictive_b_8586712?guccounter=1; Laura Santhanam, *Can Big Data Save These Children?*, PBS NEWSHOUR (Mar. 22, 2016), <https://www.pbs.org/newshour/nation/can-big-data-save-these-children>; see also *supra* notes 127–28.

69 See, e.g., CHRIS BAIRD ET AL., NAT'L COUNCIL ON CRIME AND DELINQUENCY, A COMPARISON OF RISK ASSESSMENT INSTRUMENTS IN JUVENILE JUSTICE 7–9 (2013), <https://www.ncjrs.gov/pdffiles1/ojdp/grants/244477.pdf>; John Kelly, *Florida's New Predictive Risk Tool Likely to Drive Down Juvenile Incarceration*, CHRON. SOC. CHANGE (June 23, 2015), <https://chronicleofsocialchange.org/featured/floridas-new-predictive-risk-tool-likely-to-drive-down-juvenile-incarceration/10505>.

70 See VIRGINIA EUBANKS, AUTOMATING INEQUALITY: HOW HIGH-TECH TOOLS PROFILE, POLICE, AND PUNISH THE POOR (2017) (criticizing use of algorithms in context of Medicaid policy and decisions); see also Stephanie K. Glaberson, *Coding over the Cracks: Predictive Analytics and Child Protection*, 46 FORDHAM URB. L.J. 307, 310 (2019). Glaberson argues that biased data sets can inadvertently reinforce bias:

applied to young offenders are charged with incorporating the racial and socioeconomic biases inherent in policing, prosecution, and other aspects of criminal justice policy in this country.⁷¹ These biases may be invisible to exposure, in part because many algorithms used by state actors are created by private developers who maintain copyright protection.⁷² Thus, although algorithms potentially can improve accuracy in risk assessment as compared to human decisionmakers, potential biases can undermine these benefits.

C. *How Serious Is the Problem?*

The preceding discussion supports the concern that flawed research can find its way into family law settings, and that decisionmakers sometimes rely on empirical work in ways that fail to promote accuracy. The problem to an extent is more acute in family law than in some other fields because many family court judges lack resources to allow careful evaluation of empirical support for litigants' positions. Nonetheless, on my view, the problem of inappropriate use of science in legal contexts is declining as the sophistication of legal actors increases—and this trend is likely to continue. As indicated above, the many incisive critiques of the misuse of science offer evidence of progress toward this goal. Misuse continues, but today it is more likely to be exposed than previously. Parental alienation syndrome has been thoroughly debunked by social scientists and legal scholars.⁷³ Litigants, drawing on this literature, can educate judges about the flaws in the research when presented by opposing counsel. As a result, although misuse of PAS continues, it is less frequently invoked in custody proceedings today than previously.⁷⁴ Generally, the adversary process allows contestants to test each

[A] long history of over-surveillance and over-policing of poor communities and communities of color means that those communities are disproportionately represented in any child welfare or criminal justice data set. This means that, without careful attention to the details of tool development and training, algorithms trained on these biased data sets are likely to rate individuals coming from these communities as higher risk, while systematically discounting the risk of wealthier, white families.

Id. at 345.

71 See Bernard E. Harcourt, *Risk as a Proxy for Race: The Dangers of Risk Assessment*, 27 FED. SENT'G REP. 237 (2015); Rachael T. Perrault et al., *Are Risk Assessments Racially Biased?: Field Study of the SAVRY and YLS/CMI in Probation*, 29 PSYCHOL. ASSESSMENT 664, 665 (2017).

72 Christopher E. Church & Amanda J. Fairchild, *In Search of a Silver Bullet: Child Welfare's Embrace of Predictive Analytics*, 68 JUV. & FAM. CT. J., no. 1, 2017, at 67, 73–76 (discussing the lack of transparency caused by the proprietary nature of algorithms and the potential for due process infringements).

73 See *supra* text accompanying notes 32–41; see also Joan S. Meier & Sean Dickson, *Mapping Gender: Shedding Empirical Light on Family Courts' Treatment of Cases Involving Abuse and Alienation*, 35 LAW & INEQ. 311, 317 (2017).

74 "Parental alienation" (PA) as a behavior pattern seems to have displaced PAS in courts, reducing the diagnostic mystique, likely because of the mountain of research debunking PAS. See Meier & Dickson, *supra* note 73, at 317. However, opponents assert that PA is the same junk science by another name. See *id.*

other's scientific evidence effectively.⁷⁵ The key role of dueling studies in the litigation over same-sex couples' right to marry demonstrates how the quality of research can be exposed in litigation.⁷⁶ In the legislative and regulatory context, the opportunity for vetting and analyzing empirical evidence allows lawmakers and their staffs to deliberate over the relevance of scientific studies to the issue at hand. The failure of the Sherman domestic-violence study to predict outcomes in cities with different demographics is now well understood, although its impact lingers in some localities.⁷⁷ Moreover, in Washington State and other jurisdictions, legislatures have the benefit of agencies constituted to conduct and evaluate research relevant to legislative issues.⁷⁸

Developments in the past generation bode well for future application of empirical research to family law and policy. Particularly promising is the growing collaboration between social scientists and legal scholars in designing and conducting research and in analyzing the relevance of empirical work to legal issues. Law itself has become an interdisciplinary field. Increasingly, entry-level candidates for law school faculty positions have training in

75 Faigman et al., *supra* note 15, at 472. A recent example involves the use of research on adolescent brain maturation in cases of individual juvenile defendants. Scientists quickly objected that this use was inappropriate, and litigants brought this objection into the courtroom. See *supra* notes 61–63 and accompanying text. Even in family court, litigants and judges likely do a better job today of challenging misuse of research, although the absence of screening of scientific experts' testimony in that forum puts a greater burden on opponents and judges to expose the misuse of research. Emery et al., *supra* note 10, at 145.

76 In *Perry v. Schwarzenegger*, proponents of same-sex marriage produced several expert witnesses who testified on the well-being of children raised by same-sex parents. 704 F. Supp. 2d 921, 938–43 (N.D. Cal. 2010), *aff'd sub nom.* *Perry v. Brown*, 671 F.3d 1052 (9th Cir. 2012), *vacated and remanded sub nom.* *Hollingsworth v. Perry*, 570 U.S. 693 (2013). The state produced an expert witness who gave opinions on the outcomes of children raised by married, biological parents compared to those raised in other environments. *Id.* at 948–49. The court rejected the expert's conclusion that married biological parents formed a better child-rearing environment, determining that the studies that he relied upon did not actually compare the outcomes of children raised by their biological parents with those raised by same-sex parents. *Id.*

77 See *supra* note 66 and accompanying text. Sherman himself advocated for the repeal of mandatory arrest laws based on this evidence, *id.*, but today, twenty-one states and the District of Columbia still impose some form of mandatory arrest policy for domestic violence. See Amy M. Zelcer, *Battling Domestic Violence: Replacing Mandatory Arrest Laws with a Trifecta of Preferential Arrest, Officer Education, and Batterer Treatment Programs*, 51 AM. CRIM. L. REV. 541, 546 (2014).

78 See *supra* note 57 for discussion of the Washington State Institute of Public Policy (WSIPP), which advises the state legislature on issues involving social legislation; see also ELIZABETH DRAKE, WASH. STATE INST. FOR PUB. POLICY, *THE EFFECTIVENESS OF DECLINING JUVENILE COURT JURISDICTION OF YOUTH* (2013), https://www.wsipp.wa.gov/ReportFile/1544/Wsipp_The-Effectiveness-of-Declining-Juvenile-Court-Jurisdiction-of-Youth_Report.pdf (evaluating the effectiveness and cost-benefit analysis of transferring juvenile cases to adult criminal court).

other disciplines⁷⁹ such as economics and psychology, or learn as autodidacts to be smart consumers. Much legal scholarship today draws on knowledge from other disciplines, and legal training also has become more interdisciplinary.⁸⁰ Moreover, many social scientists have focused their attention on legal issues as part of a research agenda.⁸¹

Productive interdisciplinary collaborations abound in family law. Peg Brinig's collaborations with Douglas Allen, Steven Nock, and (more recently) Marsha Garrison represent a model of good interdisciplinary work that has illuminated important questions.⁸² On a larger scale, the National Academy of Sciences has convened interdisciplinary committees that have produced reports on issues such as juvenile justice and young adulthood.⁸³ Also, the MacArthur Foundation research networks focusing on juvenile justice, neuroscience and criminal law, and early childhood have brought together scientists, legal scholars, and practitioners.⁸⁴ Working over periods of several

79 See, e.g., Blake Edwards, *The Age of the PhD Law Professor Is Upon Us, Study Says*, BLOOMBERG L. (Feb. 19, 2016), <https://news.bloomberglaw.com/business-and-practice/the-age-of-the-phd-law-professor-is-upon-us-study-says>.

80 See Kathleen M. Sullivan, *Foreword: Interdisciplinarity*, 100 MICH. L. REV. 1217, 1217 (2002). For discussions of interdisciplinary legal training, see generally Linda Morton et al., *Teaching Interdisciplinary Collaboration: Theory, Practice, and Assessment*, 13 QUINNIPIAC HEALTH L.J. 175 (2010) (describing interdisciplinary approach to teaching health law); Mike Townsend & Thomas Richardson, *Probability and Statistics in the Legal Curriculum: A Case Study in Disciplinary Aspects of Interdisciplinarity*, 40 DUQ. L. REV. 447 (2002); Anita Weinberg & Carol Harding, *Interdisciplinary Teaching and Collaboration in Higher Education: A Concept Whose Time Has Come*, 14 WASH. U. J.L. & POL'Y 15 (2004).

81 Robert Emery, a psychologist, has done important work on divorce mediation, sometimes in collaboration with legal scholars. See, e.g., ROBERT E. EMERY, *RENEGOTIATING FAMILY RELATIONSHIPS: DIVORCE, CHILD CUSTODY, AND MEDIATION* (2d ed. 2012); Scott & Emery, *supra* note 35. Other psychologists have paid attention to juvenile development and within legal frameworks. Alexandra O. Cohen et al., *When Is an Adolescent an Adult? Assessing Cognitive Control in Emotional and Nonemotional Contexts*, 27 PSYCHOL. SCI. 549 (2016); N. Dickon Reppucci & Catherine A. Crosby, *Law, Psychology, and Children: Overarching Issues*, 17 LAW & HUM. BEHAV. 1 (1993); Elizabeth S. Scott et al., *Evaluating Adolescent Decision Making in Legal Contexts*, 19 LAW & HUM. BEHAV. 221 (1995).

82 See Margaret F. Brinig & Steven L. Nock, *Marry Me, Bill: Should Cohabitation Be the (Legal) Default Option?*, 64 LA. L. REV. 403 (2004); sources cited *supra* note 1. This author's collaborative work has also been productive and was cited by the Supreme Court in the juvenile sentencing opinions. See *Roper v. Simmons*, 543 U.S. 551, 569–73 (2005) (citing Laurence Steinberg & Elizabeth S. Scott, *Less Guilty by Reason of Adolescence: Developmental Immaturity, Diminished Responsibility, and the Juvenile Death Penalty*, 58 AM. PSYCHOLOGIST 1009, 1014 (2003)); see also SCOTT & STEINBERG, *supra* note 7.

83 See, e.g., NAT'L RESEARCH COUNCIL, *supra* note 7.

84 See, e.g., *Research Network on Adolescent Development & Juvenile Justice*, MACARTHUR FOUND., <https://www.macfound.org/networks/research-network-on-adolescent-development-juvenil/> (last visited Sept. 24, 2019); *Research Network on Law and Neuroscience*, MACARTHUR FOUND., <https://www.macfound.org/networks/research-network-on-law-and-neuroscience/> (last visited Sept. 24, 2019) (listing the network's membership, which includes judges, professors of psychology and psychiatry, economists, neuroscientists, and legal academics).

years, these networks have identified key research issues, conducted studies, and disseminated findings to courts and policymakers.

The Research Network on Adolescent Development and Juvenile Justice provides a model of interdisciplinary policy-relevant research. In the mid-1990s, in response to a punitive wave of policy reforms, the MacArthur Foundation created the network, which conducted an important program of developmental and justice-system research on young offenders over a ten-year period. The foundation then funded Models for Change, which operated in several states to promote policy change based on the work of the network.⁸⁵ The foundation later supported developmental brain research through its interdisciplinary Research Network on Law and Neuroscience.⁸⁶ The work of the MacArthur research networks is seen as an important catalyst for the widespread adoption of juvenile justice reforms grounded in developmental knowledge over the past decade.⁸⁷

These developments have contributed to a generation of lawyers who are more sophisticated consumers of empirical science and to dialogue between legal and social science (and biological science) experts that has enhanced the law's comprehension of what constitutes good research.⁸⁸ Further, interdisciplinary research teams have identified the key questions in legal policy, designed sound studies grounded in an understanding of the law, and tested the impact of legal reforms.⁸⁹ Moreover, researchers and legal scholars play

85 See *About, MODELS FOR CHANGE*, <http://www.modelsforchange.net/about/index.html> (last visited Feb. 19, 2020).

86 See *Research Network on Law and Neuroscience*, *supra* note 84.

87 See, e.g., Marsha Levick, *Through Rose-Colored Glasses: The Twenty-First Century Juvenile Court*, 42 HUM. RTS., no. 3, 2017, at 23, 24 (“[O]ur careening toward an ever-harsher punitive response to juvenile offending crashed into a wall of research at the beginning of this century, produced by the MacArthur Foundation’s Research Network on Adolescent Development and Juvenile Justice, which linked the psychological and neurological developmental differences between juveniles and adults to related differences in criminal culpability.”). Articles that grew out of the work of the network were cited in both *Roper v. Simmons*, 543 U.S. 551 (2005), and *Miller v. Alabama*, 567 U.S. 460 (2012), and its studies continue to play a role in lower court decisions extending the *Roper* and *Miller* decisions to individuals older than eighteen. See Laurence Steinberg, *Understanding Adolescent Development, Reforming Juvenile Justice*, MACARTHUR FOUND. (Oct. 2, 2018), <https://www.macfound.org/press/40-years-40-stories/research-network-adolescent-development-and-juvenile-justice/>.

88 See Emery et al., *supra* note 10, at 136–37.

89 Before undertaking a program of research, the Research Network on Adolescent Development and Juvenile Justice devoted much time in interdisciplinary dialogue to determine the most important research questions in juvenile justice, as well as in the design of studies to answer those questions and plans for translation and dissemination of the results of research to legal actors. See *Research Network on Adolescent Development & Juvenile Justice*, *supra* note 84.

an important role in clarifying the relevance of science to particular legal questions and explaining the challenges of translating science to law.⁹⁰

II. EMPIRICAL RESEARCH AT WORK: TWO CASE STUDIES.

This Part describes two domains in which empirical research has had an important impact in shaping family and juvenile law and policy, resulting in positive reforms. The first is juvenile justice policy, where developmental and other research has reshaped the law's approach to young offenders. In the second legal setting, defining the state's relationship to the family, the role of research has been more complex and its potential is unrealized to an extent. In both areas, policy change has been driven by a combination of general developmental and family research undertaken with no legal agenda and a broad range of studies targeting specific legal topics, as well as programmatic research evaluating outcomes of various programs.

A. *A Developmental Model of Juvenile Justice Reform*

Social and biological science has probably been more influential in shaping reforms of juvenile justice policy in the twenty-first century than in other domains related to family law. In the 1990s, lawmakers enacted punitive law reforms that discounted the importance of differences between juvenile and adult offenders.⁹¹ Since that time, youth crime regulation has been transformed, such that today support for differential treatment of young offenders on the basis of their immaturity is embraced across the political spectrum.⁹² Research on adolescent development, and particularly developmental brain research, has perhaps been most influential in these policy reforms and has been applied to a broad array of issues. Other research has compared the performance of youths and adults in particular justice-system contexts, clarifying the disadvantages of immaturity.⁹³ Finally, researchers have studied the cost and effectiveness of different correctional programs and placements, resulting in a major shift from institutional placement to community-based dispositions.

Much of the developmental research that has influenced lawmakers reforming youth crime regulation was not undertaken with any legal purpose, although interdisciplinary scholars have often served as translators, clarifying its relevance.⁹⁴ A key catalyst for this developmental approach to

90 See, e.g., Brinig, *supra* note 10 (discussing the limitations and perils of using empirical research in family law and suggesting areas for future research); see also sources cited *supra* note 1; Steinberg & Scott, *supra* note 82.

91 See generally NAT'L RESEARCH COUNCIL, *supra* note 7; SCOTT & STEINBERG, *supra* note 7.

92 See Huntington & Scott, *supra* note 8, at 28 (discussing conservative group Right on Crime's support of developmentally based juvenile justice reforms).

93 See *infra* text accompanying notes 100–04.

94 See Steinberg & Scott, *supra* note 82. These authors applied general developmental knowledge on adolescence to the question of whether young offenders are less culpable than adult counterparts under conventional criminal law theories of mitigation. *Id.* The

reform was the invocation of behavioral and brain research by the Supreme Court in its Eighth Amendment juvenile sentencing opinions.⁹⁵ Fortuitously, the Court's use of developmental research in these opinions directed lawmakers' attention to empirical studies on adolescence at a time when the body of research, particularly brain research, was growing dramatically. The research has motivated sentencing and parole reforms⁹⁶ and also influenced courts' evaluation of the voluntariness of youths' confessions,⁹⁷ as well as the constitutionality of solitary confinement and sex-offender registries for juvenile offenders.⁹⁸ Prominent national organizations also fostered reform, including the National Academy of Sciences, which issued an influential report on the importance of developmental science in juvenile justice reform.⁹⁹

Developmental brain research has shaped justice policy in key ways. First, the research has reinforced the premise that juveniles are less culpable than their adult counterparts, because much teenage offending is influenced by developmental factors beyond the control of the individual youth.¹⁰⁰ Teenage criminal choices are linked to interrelated features of brain development, including a tendency toward sensation seeking, a reduced capacity to regulate emotions as compared to adults, and a greater susceptibility to peer influence.¹⁰¹ Second, developmental research confirms that typical adolescent offenders have the potential to reform.¹⁰² *Because* juvenile crime

Supreme Court adopted their framework in the Eighth Amendment juvenile sentencing opinions. *Roper v. Simmons*, 543 U.S. 551, 569–70, 573 (2005); *Miller v. Alabama*, 567 U.S. 460, 471 (2012). See generally SCOTT & STEINBERG, *supra* note 7.

95 See generally *Montgomery v. Louisiana*, 136 S. Ct. 718 (2016); *Miller*, 567 U.S. at 471; *Graham v. Florida*, 560 U.S. 48, 68 (2010); *Roper*, 543 U.S. at 569–70, 573.

96 See Elizabeth Scott et al., *Juvenile Sentencing Reform in a Constitutional Framework*, 88 TEMP. L. REV. 675, 703–12 (2016) (discussing sentencing and parole reforms already taken and opportunities for future reform).

97 See *A.M. v. Butler*, 360 F.3d 787, 801 n.11 (7th Cir. 2004) (citing empirical research to assert that an eleven-year-old defendant would have been unable to understand the concepts of *Miranda* rights and waiver); *In re Elias V.*, 188 Cal. Rptr. 3d 202, 224 (Ct. App. 2015) (finding confession by a thirteen-year-old involuntary, citing empirical research); *In re Jerrell C.J.*, 699 N.W.2d 110, 135 (Wis. 2005) (citing empirical research to show juveniles are “less capable than adults of understanding their *Miranda* rights”).

98 See *A.T. ex rel. Tillman v. Harder*, 298 F. Supp. 3d 391, 411 (N.D.N.Y. 2018) (granting preliminary injunction against juvenile solitary confinement, based on part on the “large and growing body of research that confirms the use of solitary on juveniles is actually counterproductive to the penological goals of facility safety and security”); *In re Z.B.*, 757 N.W.2d 595, 611 (S.D. 2008) (Sabers, J., dissenting in part) (citing empirical research to argue that juveniles should be treated differently under sex-offender registry statutes).

99 NAT'L RESEARCH COUNCIL, *supra* note 7.

100 See Steinberg & Scott, *supra* note 82, at 1009.

101 See Scott et al., *supra* note 48, at 20–33 (summarizing the relevant brain research); see also Jason Chein et al., *Peers Increase Adolescent Risk Taking by Enhancing Activity in the Brain's Reward Circuitry*, 14 DEVELOPMENTAL SCI. F1, F2 (2011) (describing developments in the social brain); Cohen et al., *supra* note 81, at 550, 559–60.

102 See LAURENCE STEINBERG, *AGE OF OPPORTUNITY: LESSONS FROM THE NEW SCIENCE OF ADOLESCENCE* 18–45 (2014).

is typically a product of immaturity, most delinquent youths are likely to desist as they mature to adulthood¹⁰³ and have reasonable prospects of becoming productive adults.¹⁰⁴ This realization has focused attention on the importance of correctional responses that facilitate the transition of delinquent youths to noncriminal adulthood.

Reinforcing this response is another body of developmental research confirming the importance of social context for healthy maturation during adolescence.¹⁰⁵ A healthy social context provides the conditions for the attainment of skills and capacities that are important to successful adult functioning,¹⁰⁶ but social context can also impede healthy maturation. Modern regulators increasingly have embraced the lessons of this research, reducing incarceration (which tends to offer a poor social context for development),¹⁰⁷ and shifting resources to community-based programs that provide better conditions and interventions more likely to promote healthy development.¹⁰⁸

This general behavioral and biological research on adolescence has been augmented by interdisciplinary studies targeting dimensions of adolescent decisionmaking relevant to involvement in criminal activity and to participation in the criminal process. In the MacArthur research networks, teams of neuroscientists and legal scholars studied adolescent and adult choices implicating the features of brain development likely relevant to

103 Offending peaks at age seventeen and is then followed by a steep decline in criminal activity. See Alex R. Piquero et al., *The Criminal Career Paradigm*, 30 CRIME & JUST. 359, 370 (2003).

104 The Supreme Court noted juveniles' potential for reform in its Eighth Amendment opinions. See, e.g., *Miller v. Alabama*, 567 U.S. 460, 479–80 (2012); *Graham v. Florida*, 560 U.S. 48, 68 (2010).

105 See Leah H. Somerville et al., *A Time of Change: Behavioral and Neural Correlates of Adolescent Sensitivity to Appetitive and Aversive Environmental Cues*, 72 BRAIN & COGNITION 124, 130–31 (2010).

106 See Laurence Steinberg et al., *Reentry of Young Offenders from the Justice System: A Developmental Perspective*, 2 YOUTH VIOLENCE & JUV. JUST. 21, 25–26 (2004). These conditions include an authoritative parent figure, contact with prosocial peers, and opportunities for autonomous decisionmaking and critical thinking. See Urie Bronfenbrenner & Pamela A. Morris, *The Bioecological Model of Human Development*, in 1 HANDBOOK OF CHILD PSYCHOLOGY 793, 822 (Richard M. Lerner ed., 6th ed. 2006); B. Bradford Brown & James Larson, *Peer Relationships in Adolescence*, in 2 HANDBOOK OF ADOLESCENT PSYCHOLOGY 74, 95 (Richard M. Lerner & Laurence Steinberg eds., 3d ed. 2009); Laurence Steinberg, *We Know Some Things: Parent-Adolescent Relationships in Retrospect and Prospect*, 11 J. RES. ON ADOLESCENCE 1, 7, 14–15 (2001) [hereinafter Steinberg, *We Know Some Things*].

107 NAT'L RESEARCH COUNCIL, *supra* note 7, at 32.

108 The most effective programs seek to empower parents to fulfill their role more effectively and when that is not possible to substitute other adult parent figures who can provide structure and support to delinquent youths. These programs facilitate prosocial peer interactions as well, providing youths with the tools to avoid the influence of antisocial peers in school and in the community setting. They also provide a range of other interventions that support youths, respond to their needs, and assist them in acquiring the skills they need to make the transition to adulthood. See Steinberg, *We Know Some Things*, *supra* note 106, at 15–16.

engagement in criminal activity, and reported significant differences between adolescents and adults.¹⁰⁹ Other scientists have compared adolescents' and adults' comprehension of *Miranda* warnings and competence to participate in the adjudicative process.¹¹⁰ These studies, informed by the general developmental research, support the conclusion that youthful offending is developmentally driven and that youths, due to their immaturity, are seriously disadvantaged in navigating the justice system.¹¹¹ Courts have cited this research in extending special protections to youths in the system.¹¹²

Research on various juvenile correctional programs has also shaped justice-system reforms. Researchers have studied the effectiveness of different programs and sanctions in reducing reoffending and found some community-based programs to be much more effective than incarceration, at a far lower cost.¹¹³ These studies, together with research on social context¹¹⁴ and on the harms associated with incarcerating youths, have led states to close institutional facilities and shift resources to communities to fund evidence-based programs that promise better outcomes.¹¹⁵ This trend away from incarceration affects a broad category of youths in the justice system and is one of the most important of the twenty-first-century reforms grounded in empirical research.

109 This research was reported in Cohen et al., *supra* note 81, at 550, 559–60.

110 Thomas Grisso, *Juveniles' Capacities to Waive Miranda Rights: An Empirical Analysis*, 68 CALIF. L. REV. 1134 (1980); Thomas Grisso et al., *Juveniles' Competence to Stand Trial: A Comparison of Adolescents' and Adults' Capacities as Trial Defendants*, 27 LAW & HUM. BEHAV. 333 (2003); Elizabeth S. Scott & Thomas Grisso, *Developmental Incompetence, Due Process, and Juvenile Justice Policy*, 83 N.C. L. REV. 793, 820–27 (2005).

111 A major study on adjudicative competence found that a substantial percentage of youths under age sixteen lack competence to proceed under standards applied to adult defendants. Grisso et al., *supra* note 110, at 333. Several studies have found that the ability to understand *Miranda* warnings is compromised in minors age fifteen and younger. Grisso, *supra* note 110, at 1135–36.

112 See, e.g., *In re Elias V.*, 188 Cal. Rptr. 3d 202, 224 (Ct. App. 2015) (citing Grisso's research in finding confession by juvenile involuntary); *In re Jerrell C.J.*, 699 N.W.2d 110, 135 n.47 (Wis. 2005) (citing Grisso's research in adopting a requirement that all custodial interrogations of juveniles must be electronically recorded where feasible).

113 Examples of successful cost-effective programs include Multisystemic Therapy, Aggression Replacement Training, Functional Family Therapy, and Multidimensional Treatment Foster Care. See NAT'L RESEARCH COUNCIL, *supra* note 7, at 168–69; Elizabeth S. Scott & Laurence Steinberg, *Social Welfare and Fairness in Juvenile Crime Regulation*, 71 LA. L. REV. 35, 75–78 (2010).

114 See *supra* notes 105–06 and accompanying text.

115 See Carter Hay et al., *Tracing the Rise of Evidence-Based Juvenile Justice in Florida*, 13 VICTIMS & OFFENDERS 312, 312 (2018); Scott W. Henggeler & Sonja K. Schoenwald, *Evidence-Based Interventions for Juvenile Offenders and Juvenile Justice Policies That Support Them*, 25 SOC. POL'Y REP., no. 1, 2011, at 10; Editorial, *Two Words: Wasteful and Ineffective*, N.Y. TIMES (Oct. 11, 2010), <https://www.nytimes.com/2010/10/11/opinion/11mon1.html> (describing programs offering community-focused alternatives to incarceration in New York and advocating for further reform along those lines).

B. State Regulation of Families

The second area in which empirical research has had an important impact is in the regulation of the family and of the parent-child relationship. Here, progress has been more uneven than in the juvenile justice context. Child development research and studies of foster-care outcomes provide strong support for contemporary policies restricting state intervention in families that disrupts the child's relationship with her parents. Other research on early childhood and on the needs of children in single parent families has influenced lawmakers to provide prekindergarten and other prevention programs to children.¹¹⁶ But the potential impact of early childhood research is far from fully realized. Although a consensus holds that early childhood prevention programs enhance children's healthy development and are cost effective, states have been slow to provide these services.¹¹⁷

Over the past several decades, child protection policy has seesawed; in some periods family preservation is prioritized, while in others, a child protection rationale has justified an aggressive interventionist approach. In recent years, lawmakers have increasingly embraced family preservation.¹¹⁸ Many factors have contributed to this move and empirical research has not played a major explicit role. But family preservation policies are strongly supported and reinforced by consistent findings in child development research, clarifying that a strong parent-child relationship is critical for healthy child development and that disruption of this relationship threatens serious harm to the child.¹¹⁹ A regime of robust parental rights protects this critical relationship by restricting state intervention in the family and limiting the harms that often follow from intervention and removal. It is well understood today that children suffer serious harm from the instability that follows removal from parental custody, even if their parents' care has been suboptimal.¹²⁰ Moreover, studies also find that children fare poorly in foster care and that the state often fails to promote their well-being when it disrupts families.¹²¹ This research can stabilize the current approach of grounding child protection in a principle of family preservation, supporting families and restricting removal of children from their homes.¹²²

116 See, e.g., Huntington & Scott, *supra* note 8.

117 *Id.*

118 *Id.*

119 For the foundational work on the importance of attachment and the harms from disruption, see 1 JOHN BOWLBY, ATTACHMENT AND LOSS 27–30, 209, 326, 330 (1969); 2 *id.* at 3–16, 245–56 (1973); and 3 *id.* at 7–14, 397–411 (1980).

120 See Huntington & Scott, *supra* note 8.

121 Clare Huntington, *Rights Myopia in Child Welfare*, 53 UCLA L. REV. 637, 661 (2006) (describing the harmful short- and long-term consequences of foster care).

122 CHILD WELFARE INFO. GATEWAY, CHILDREN'S BUREAU, REASONABLE EFFORTS TO PRESERVE OR REUNIFY FAMILIES AND ACHIEVE PERMANENCY FOR CHILDREN 1 (2020), <https://www.childwelfare.gov/pubPDFs/reunify.pdf> (noting that all states require child welfare agencies to make reasonable efforts to help families remedy conditions and prevent child removal); *The Child Welfare Placement Continuum: What's Best for Children?*, NAT'L CONF. ST. LEGISLATURES (Nov. 3, 2019), <http://www.ncsl.org/research/human-services/the-child->

The child development research has played a key role in a recent debate in which some legal scholars have challenged strong parental rights as a vestige of an outdated regime.¹²³ In response, other scholars have marshaled child development research in support of policies protecting parental rights and restricting state intervention.¹²⁴ Scholars in the second group have also argued that protection from state intervention is especially important for children of color and low-income families given the disparities in the child welfare system.¹²⁵ Parental rights provide a shield against excessive state intrusion driven by racial and ethnic bias.¹²⁶

A more controversial use of science in child welfare practice is predictive analytics, employed in decisionmaking about intervention in families and removal of children. Critics argue that this technology produces high false-positive rates and that some factors incorporated into the algorithm are biased against poor families of color.¹²⁷ But these criticisms go largely to the accuracy of the current algorithms. Improvement potentially can result in an instrument to assist human decisionmakers, who are also biased against poor families and often inclined to intervene excessively. At a minimum, predic-

welfare-placement-continuum-what-s-best-for-children.aspx ("Ideally, a child at risk of abuse or neglect can remain with his or her birth family and receive in-home services designed to strengthen and support the family . . .").

123 See Anne C. Dailey & Laura A. Rosenbury, *The New Law of the Child*, 127 YALE L.J. 1448, 1456 (2018) (challenging the importance of parental authority in contemporary family law). These authors argue that parental rights play an important protective role for very young children but, beyond this period, parental rights should be limited by "situating the parent-child relationship within a larger web of children's relationships and interests." *Id.* at 1510; see also James G. Dwyer, *Parents' Religion and Children's Welfare: Debunking the Doctrine of Parents' Rights*, 82 CALIF. L. REV. 1371, 1426-39 (1994) (opposing parental rights); Katherine Hunt Federle, *Children's Rights and the Need for Protection*, 34 FAM. L.Q. 421 (2000).

124 See MARTIN GUGGENHEIM, WHAT'S WRONG WITH CHILDREN'S RIGHTS 35-39 (2005); DOROTHY ROBERTS, SHATTERED BONDS: THE COLOR OF CHILD WELFARE 267-76 (2002); Emily Buss, *Adrift in the Middle: Parental Rights After Troxel v. Granville*, 2000 SUP. CT. REV. 279, 285-90; Huntington & Scott, *supra* note 8; Elizabeth S. Scott & Robert E. Scott, *Parents as Fiduciaries*, 81 VA. L. REV. 2401 (1995).

125 See GUGGENHEIM, *supra* note 124; ROBERTS, *supra* note 124; Huntington & Scott, *supra* note 8.

126 See Huntington & Scott, *supra* note 8.

127 See Glaberson, *supra* note 70, at 345 ("Algorithms trained on data representing historical biases will inherit those biases."); Sarah Valentine, *Impoverished Algorithms: Misguided Governments, Flawed Technologies, and Social Control*, 46 FORDHAM URB. L.J. 364, 378-87 (2019) (discussing the dramatic burdens false positives impose on individuals and noting that "[t]he Los Angeles County Office of Child Protection halted the adoption of another child welfare algorithm when auditing indicated a ninety-five percent false-positive rate"); *supra* notes 70-72 and accompanying text. The technology is also criticized on the ground that it is opaque, with developers holding proprietary rights. See Robert Brauneis & Ellen P. Goodman, *Algorithmic Transparency for the Smart City*, 20 YALE J.L. & TECH. 103, 153-59 (2018).

tive-analytic outcomes can serve as a limiting device, restraining state actors from excessive intervention.¹²⁸

Other scientifically based family policies have begun to emerge. Child development research and theory strongly supports the value for child well-being of family support and educational programs early in life.¹²⁹ Longitudinal research on fragile families supports that these programs can offer benefits to children in poverty, and especially to those in single-parent families.¹³⁰ On the basis of empirical evidence, states from Oklahoma to Vermont have adopted universal preschool programs; moreover, some states have embraced parenting education, childcare, and other social support programs that have been shown to strengthen families with young children.¹³¹ Given the clear evidence that family support programs enhance child well-being for the most vulnerable families and are also cost effective, advocates argue that progress toward adopting these programs and toward embracing a preventive approach to child welfare has been very slow.¹³²

* * *

The two examples of domains in which empirical research has had an important impact on family law and policy offer some lessons on effective deployment of science in this realm and on avoidance of various kinds of misuse. First, in both the juvenile-justice and family-intervention contexts, the bodies of research shaping legal policy are substantial and grounded in extensive general developmental knowledge that has accrued over an extended period. Behavioral and biological scientists studying child and adolescent development employ methodological tools carefully without advocacy goals; their objective is to map human development. Studies are overlapping and cumulative and are guided by scientific values and norms and subject to rigorous peer review. Second, this foundation of developmental research has been augmented by demographic research and by more targeted studies employing a range of methodologies, including longitudinal and cross-sectional research examining legal issues of interest, from the competence of individuals at different ages to participate in the legal process to the outcomes of children in various placements in the child welfare and justice systems. The findings of these studies converge with those of the underlying

128 In other words, the state actor's decision to intervene must be confirmed by the algorithm.

129 See LYNN A. KAROLY ET AL., RAND CORP., *EARLY CHILDHOOD INTERVENTIONS* 55–86 (2005) (summarizing research on the benefits of early childhood intervention).

130 See Deborah Lowe Vandell et al., *Do Effects of Early Child Care Extend to Age 15 Years? Results from the NICHD Study of Early Child Care and Youth Development*, 81 CHILD DEV. 737, 738 (2010) (citing studies). See generally Arthur J. Reynolds et al., *Long-Term Effects of an Early Childhood Intervention on Educational Achievement and Juvenile Arrest: A 15-Year Follow-Up of Low-Income Children in Public Schools*, 285 JAMA 2339 (2001).

131 Huntington & Scott, *supra* note 8.

132 These authors show that lawmakers have long embraced a crisis intervention approach rather than a preventive approach that supports families. *Id.*

developmental research and present a coherent account of child and adolescent abilities and behavior. For example, research on the relationship between age and adjudicative competence, comprehension of *Miranda* rights, and the capacity to make informed abortion decisions are all consistent with general research on cognitive development in decision-making ability during adolescence.¹³³ This convergence enhances confidence in the reliability and validity of the research. Program evaluation studies are prominent in both juvenile-justice and family-support contexts and also are consistent with underlying developmental research (and indeed are often grounded in that research), allowing decisionmakers to confidently measure the cost and effectiveness of different interventions.

III. EMPIRICAL FAMILY LAW AND VALUE COMPETITION

Some critics express concern that the turn toward empiricism may obscure important value competitions in family law or have undue influence on how different values are prioritized. Clare Huntington argues that research on child outcomes may undermine the value assigned to protecting parents in vulnerable groups that have suffered historic discrimination.¹³⁴ For example, Huntington is concerned that if studies were to show that Native American children fared better in white adoptive families than in tribal placements, protection of family and tribal rights would be threatened, despite historic discrimination.¹³⁵ Further, because research findings must result in measurable outcomes, critics note that intangible matters that are hard to quantify (for example, a child's sense of security in her family or identity with her tribe) may not be studied, and therefore are likely to be discounted by lawmakers.¹³⁶ Ultimately, Huntington proposes that in debates of competing values, scientific empirical input should be limited. On her view, science is relevant to deciding how much different legal rules

133 See Grisso, *supra* note 110, at 1151–60 (*Miranda* study); Grisso et al., *supra* note 110, at 333–36 (study of adjudicative competence); Lois A. Weithorn & Susan B. Campbell, *The Competency of Children and Adolescents to Make Informed Treatment Decisions*, 53 CHILD DEV. 1589, 1590 (1982) (study of abortion decisionmaking).

134 See Huntington, *supra* note 2, at 233.

135 See *id.*

136 For example, a child's sense of security with family is much harder to measure than academic progress or developmental milestones. See Huntington, *supra* note 2, at 253 n.140, 284–85. Similar arguments have been made in other contexts. See Jane H. Aiken & Stephen Wizner, *Measuring Justice*, 2013 WIS. L. REV. 79, 80–81 (discussing the difficulties in quantifying adequate legal representation for poor and marginalized communities); Darryl K. Brown, *Cost-Benefit Analysis in Criminal Law*, 92 CALIF. L. REV. 323, 325 (2004) (arguing the heavy costs of criminal law enforcement have been discounted by lawmakers in part because they are difficult to quantify); David C. Kimball-Stanley, *The "Relationship Premium": Should Cost-Benefit Analysis Include the Value of Human Connections?*, 48 ENVTL. L. REP. 10,402, 10,402 (2018) (arguing that cost-benefit analyses discount the unquantifiable but significant value of human relationships).

will advance certain values, but it should not replace a robust debate about the values themselves.¹³⁷

Huntington's critique of empiricism raises valid concerns and highlights the importance of separating empirical and nonempirical dimensions of values debates. But the task is Herculean (as Huntington acknowledges) because values often have empirical content, and accuracy in evaluating the stakes of the value contest is critically important. Ultimately, on my view, the problem of misuse of science discussed earlier looms larger than this more foundational concern.

To be sure, values shape family law and policy, and competing values often cannot be prioritized based on empirical knowledge. Early in the movement to apply social science research to family law matters, Robert Mnookin warned enthusiastic interdisciplinary scholars that many issues were not resolvable on the basis of empirical knowledge.¹³⁸ Thus a court applying the best interest standard to determine child custody must prioritize among various goals—and often science will provide little guidance.¹³⁹ But scientific research sometimes *is* relevant to evaluating and weighing one value against another. Although there is a risk that research support will distort the weighing of values in the legal arena, lawmakers often do not lose sight of the value competition. For example, the law protects parental authority by maintaining a privilege to use reasonable corporal punishment or (in some states) to withhold vaccines from their children, despite substantial evidence that these practices can be harmful.¹⁴⁰ Further, research demonstrating that a minor by age fourteen is capable of making an informed medical decision weighs in favor of authorizing minors to make autonomous abortion decisions.¹⁴¹ But this has done little to resolve the debate over minors' access to abortion, and lawmakers in many states impose restrictions on minors in deference to parental authority.¹⁴² Finally, as discussed above, powerful research evidence supporting the benefits of investments in early childhood has had only modest influence on a child welfare system that valorizes liberta-

137 See Huntington, *supra* note 2, at 282–91, 296–303 (proposing a limited role for empirical evidence in the context of competing values but also noting the numerous ways the distinction between facts and values collapses).

138 See Mnookin, *supra* note 19.

139 See *id.* at 260 (“Deciding what is best for a child poses a question no less ultimate than the purposes and values of life itself.”).

140 See RESTATEMENT OF CHILDREN AND THE LAW § 3.24 cmt. c (AM. LAW INST., Tentative Draft No. 1, 2018) (discussing rationales for the parental privilege to use reasonable corporal punishment, despite evidence that corporal punishment is not effective and can cause harm when harsh). For a discussion of the parental right to withhold vaccines, see generally Erwin Chemerinsky & Michele Goodwin, Essay, *Compulsory Vaccination Laws Are Constitutional*, 110 NW. U. L. REV. 589 (2016); and Frej Klem Thomsen, *Childhood Immunization, Vaccine Hesitancy, and Provaccination Policy in High-Income Countries*, 23 PSYCHOL. PUB. POL’Y & L. 324 (2017).

141 See Weithorn & Campbell, *supra* note 133, at 1590.

142 See RESTATEMENT OF CHILDREN AND THE LAW § 19.02 cmt. a & reporters’ note (AM. LAW INST., Tentative Draft No. 2, 2019).

rian values associated with self-sufficiency.¹⁴³ These examples suggest that empirical research may be invoked in legal debates implicating core values—and it may be relevant to weighing one value against another. But empirical knowledge does not necessarily determine how values are prioritized, nor does empirical input obscure the competition. In each of these examples, courts and other lawmakers have not discounted the values competing with those supported by research; indeed, often the empirical support gets short shrift.

On my view, the application of relevant empirical knowledge grounded in sound science to legal policy debates is usually beneficial. Research can reinforce or diminish the importance of the underlying values themselves in particular contexts.¹⁴⁴ It can also play a key—and legitimate—role in prioritizing contested values. For example, studies showing that youths have a poorer understanding of *Miranda* warnings than do adults, are far more susceptible to coercive influence by authority figures, and confess at much higher rates have led some states to adopt special protections for youths in interrogation.¹⁴⁵ Effectively, these lawmakers, on the basis of this empirical evidence, have prioritized the value of fairness to accused youths over that of public protection. If youths and adults responded similarly in interrogation, there would be no need or call for reform. Similarly, if adolescents were incompetent to make informed medical decisions about abortion, the argument for prioritizing their reproductive autonomy over parental authority would be weaker. The research strengthens the claim for prioritizing the value of autonomy over that of parental authority.

The debates of concern to critics often involve contexts in which child well-being is thought to be in competition with parental authority and family privacy. To be sure, as Huntington suggests, opponents of special protections for Native American parents under the Indian Child Welfare Act may invoke research challenging whether these policies promote (at least some aspects of) individual children's well-being.¹⁴⁶ But good empirical research can often assist to resolve value contests in ways that support parental authority. Consider, for example, the complex, and ultimately beneficial, role that research has played in the modern formulation of the parental privilege to use reasonable physical discipline. Some child advocates have pointed to research showing the harms of corporal punishment and to expert opinions advocating for abolition of the parental privilege.¹⁴⁷ Supporters of the privi-

143 See *supra* text accompanying notes 129–32.

144 Thus, research weakens parental autonomy claims to withhold vaccines from children. See *supra* note 140 and accompanying text.

145 RESTATEMENT OF CHILDREN AND THE LAW § 14.21 cmt. c (AM. LAW INST., Tentative Draft No. 1, 2018) (discussing research on minors' reduced comprehension of *Miranda* rights); *id.* § 14.21 cmt. h (discussing research on minors' vulnerability to coercion and increased rates of confessions). The Restatement follows states that provide special protections (presence of counsel) for younger minors. *Id.* § 14.22 (Tentative Draft No. 1, 2018).

146 Huntington, *supra* note 2, at 286–87.

147 See e.g., Comm. on Psychosocial Aspects of Child & Family Health, Am. Acad. of Pediatrics, *Guidance for Effective Discipline*, 101 PEDIATRICS 723, 726 (1998) (concluding that

lege have not defended corporal punishment as a practice.¹⁴⁸ Rather, they have pointed out that research evidence indicates that only harsh punishment (and not spanking) is harmful to child well-being.¹⁴⁹ Just as important, opponents of abolition have argued that physical discipline continues to be used by black parents, and redefining it as child abuse would expand opportunities for state intervention in families already subject to intrusive state oversight.¹⁵⁰ Instead of abolition, lawmakers have modernized the privilege to prohibit forms of punishment that were once acceptable but that are now understood to be harmful to children and therefore not “reasonable.”¹⁵¹ In the value competition between child well-being and family privacy, the research ultimately demonstrated that the two values could be reconciled.

In evaluating the role that empirical research should play in family law and policy, it is important to ask: Compared to what? Often the alternative basis for empirical conclusions and assumptions is human intuition and judgment, which seems more concerning. A court is on shaky ground when it relies on the “pages of human experience” in support of its conclusion that parents usually consider only their child’s interest in admitting the child to a psychiatric hospital.¹⁵² On most issues on which competing principles and values are interwoven with empirical assumptions and questions, sophisticated use of sound research, if available, will usually be superior to intuition and speculation as a means of informing those questions—because it will

“spanking is a less effective strategy than time-out or removal of privileges for reducing undesired behavior in children”); Elizabeth T. Gershoff, *More Harm than Good: A Summary of Scientific Research on the Intended and Unintended Effects of Corporal Punishment on Children*, LAW & CONTEMP. PROBS., Spring 2010, at 31, 40–56 (summarizing unintended negative effects of corporal punishment and concluding the harms outweigh the benefits); Elizabeth T. Gershoff & Andrew Grogan-Kaylor, *Spanking and Child Outcomes: Old Controversies and New Meta-Analyses*, 30 J. FAM. PSYCHOL. 453, 457 (2016) (finding a correlation, though not causation, between spanking and detrimental outcomes for children).

148 See Huntington & Scott, *supra* note 8 (arguing that the privilege is justified as a limit on harmful state intervention, which disproportionately affects communities of color). The Restatement of Children and the Law comments offer several modern rationales for the privilege, including respect for family integrity, pluralism, and parental decisionmaking. See RESTATEMENT OF CHILDREN AND THE LAW § 3.24 cmt. c (AM. LAW INST., Tentative Draft No. 1, 2018).

149 See Diana Baumrind et al., *Ordinary Physical Punishment: Is It Harmful? Comment on Gershoff (2002)*, 128 PSYCHOL. BULL. 580, 581 (2002) (finding that although there is scientific consensus that “overly severe forms of corporal punishment” are detrimental, there is no consensus about spanking); Huntington & Scott, *supra* note 8, at 38–41 (describing research that supports this conclusion).

150 See Huntington & Scott, *supra* note 8, at 38–41 (favoring the privilege to use reasonable corporal punishment based on concerns about expanding harmful state intervention into families already at risk of disruption, particularly low-income families and families of color). See RESTATEMENT OF CHILDREN AND THE LAW § 3.24 cmt. c (AM. LAW INST., Tentative Draft No. 1, 2018).

151 Huntington & Scott, *supra* note 8, at 39 n.255 (citing RESTATEMENT OF CHILDREN AND THE LAW § 3.24(b) (AM. LAW INST., Tentative Draft No. 1, 2018) (providing that a use of punishment that causes more than transient marks is not reasonable)).

152 *Parham v. J.R.*, 442 U.S. 584, 602–04 (1979).

enhance accuracy. For example, in the debates about extending marriage to same-sex couples, opponents' claims about the harms of same-sex parenting, likely grounded in antigay bias, would have been answered much less effectively without compelling research.

The general point likely also applies to contexts in which child well-being and parental authority are thought to compete. Human decisionmakers are subject to racial and other biases that are likely to influence their judgments in making decisions that prioritize these values. It seems unlikely (although it is an empirical question) that families of color will fare better if empirical evidence plays a background role in debates about the trade-off between child well-being and family privacy (or in the justice system, between child well-being and public safety).¹⁵³ To be sure, biased decisionmakers may reflexively rely on thin empirical support for a practice or policy that ostensibly promotes child welfare, while harming poor parents. But the past history of oppression and current experience of marginalization are front and center today in conversations about the state's relationship with families of color and poor families.¹⁵⁴ It is plausible that more often than not, empirical evidence will protect the interests of marginalized families better than reliance on conventional wisdom and assumptions about the world. The latter seems almost always to be inferior as a basis of policy and more likely to result in biased calculations.

CONCLUSION

Margaret Brinig was a pioneer as an interdisciplinary scholar and has been a leading empiricist working in family law for decades. She has been appropriately cautious and critical in her evaluation of the role of scientific research in this field. Modern scholars and researchers, following Brinig's lead, have become increasingly sophisticated in understanding the promise and limits of social science and in conducting interdisciplinary policy-relevant research. Legal scholars also are training a generation of lawyers who can deploy and critique scientific evidence in litigation and in lawmaking. To be sure, legal actors continue to misuse empirical research, offering weak studies or deploying solid research inappropriately in support of advocacy positions. But the trend is positive; there is good reason to be optimistic that the expanding use of empirical research will contribute to law and policy reform that better serves the interests of children and families.

153 See Huntington & Scott, *supra* note 8 (describing heightened awareness of racial disproportionality (based on research evidence) in the justice system).

154 Awareness of racial discrimination is also at the heart of debates.

